BLADE FOR COMPRESSOR AND MANUFACTURE THEREOF

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Inventor: KOYAMA SATOSHI; FUKUDA TETSUO

Applicant: TOSHIBA CORP

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- international: F04C18/344; F04C18/344

- european:

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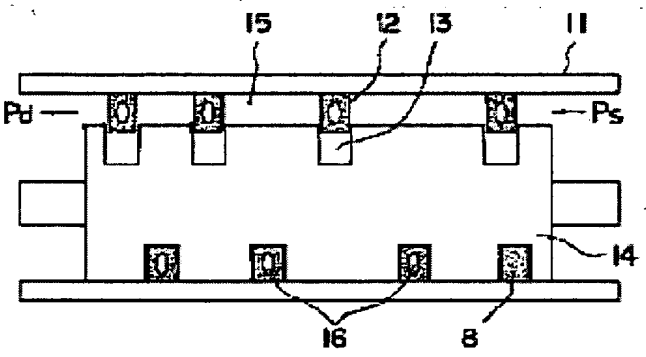
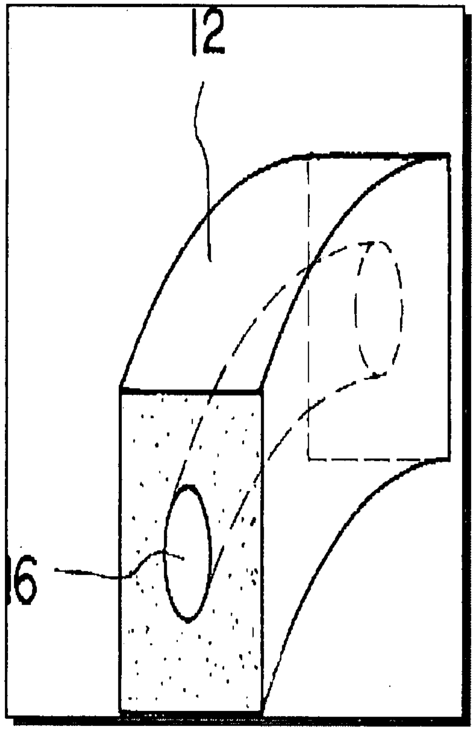
Abstract of **JP10061575**

PROBLEM TO BE SOLVED: To easily get a blade in/from a spiral groove, and to improve the sliding characteristic, abrasion resistance and sealing property by forming a space inside of a spiral blade made of fluororesin, which forms a compressing element of a compressor, along the spiral direction thereof, and communicating a part of this space with a compression chamber. SOLUTION: A compressing element of a helical blade compressor is formed of a spiral blade 12, which is made of PTFE resin and which is arranged along the inner peripheral surface of a cylindrical cylinder 11, and a piston 14 having a spiral groove 13, in which the blade is to be fitted, and the pitch of the spiral groove 13 is formed so as to be gradually reduced from a coolant inlet side toward the coolant outlet side. In this case, the blade 12 is formed into the hollow structure having a square cross section having a space 16 inside thereof, and a part of the space 16 is opened to a high-pressure Pd side, and while formed into the closed-shape at a low-pressure Ps side. Flexibility is thereby increased by providing the space 16 in the blade 12, and the blade can be easily get in/from the spiral groove 13.





ブレード	中空部面積率 (%)	コンプ成績係数
ブレード2	0	100
ブレード12	10	104
	20	109
	30	110
	40	105
	50	35

項目	ブレード	コンプ成績係数
実施例	ブレード12	117
比較例	ブレード開放端逆	106
	ブレード2	100

炭素繊維配合量 (重量%)	メルトフローレート (g/10分)	PFA樹脂
0	13	340−J，三井・デュポンフロロケミカル
5	10	340−J，三井・デュポンフロロケミカル
10	8	340−J，三井・デュポンフロロケミカル